

Western Electric Co., Incorporated,
Engineering Dept.,
New York.

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METHOD OF OPERATION
LINE CIRCUIT.

Test To Trouble Desk - With Supervision - Local Test Desk - (Small Capacity) - Full Mechanical Power Driven System.

GENERAL DESCRIPTION

1. This circuit is used to test subscribers' lines or trunk lines whose sleeves are connected to ground through a maximum resistance of 1050 ohms. When the trouble operator inserts the plug of this circuit in the jack of the line to be tested, the red lamp flashes. If the receiver is removed from the switchhook the white lamp will flash and an audible signal will be given. When the test man inserts the plug of the test cord in the jack, the white lamp is extinguished and the red lamp lights. When the disconnect key is operated, the disconnect lamp lights, before the trouble operator, and remains lighted until the plug of the circuit is removed from the jack, restoring the circuit to normal.

DETAILED DESCRIPTION

2. Upon receipt of instructions from the test man, the trouble operator inserts the plug of the circuit in the line to be tested. The SLV relay operates to ground on the sleeve of the line. The SLV relay operated closes a circuit from interrupted battery, break contact of the H relay, make contact of the SLV relay, to ground through the red lamp causing it to flash. If the line under test, is a subscriber's line and the receiver is removed from the switchhook, the L relay operates from battery, through the relay, break contact of the CO relay, subscriber's loop, to ground on the break contact of the CO relay. The operation of the L relay flashes the white lamp and also operate the auxiliary signal.

3. When the plug of the test cord is inserted in the jack of this circuit, the CO relay operates from battery on the sleeve of the test cord. The operation of the CO relay releases the L relay, and operates the

H relay from ground on the make contact of the CO relay. The release of the L relay extinguishes the white lamp. The H relay locks to ground on the make contact of the SLV relay, and changes the red lamp, from a flashing to a steady light busy signal. When the DISC key is operated, the D relay operates and locks under the control of the SLV relay. The operation of the D relay lights the disconnect lamp at the sender monitor's position. When the sender monitoring operator removes the plug of the line from jack the SLV relay releases, releasing all the relays and restoring the circuit to normal.

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CIRCUIT REQUIREMENTS

	<u>OPERATE</u>	<u>NON-OPERATE</u>	<u>RELEASE</u>
B98 (L)	Test .006 amp. Readj. .004 amp.		Test .0012 amp. Readj. .0025 amp.
E31 (D)	Test .026 amp. Readj. .012 amp.		Test .0012 amp. Readj. .0024 amp.
E34 (H)	Test .030 amp. Readj. .020 amp.	Test .015 amp. Readj. .016 amp.	
3174 (CO)	Test .108 amp. Readj. .085 amp.	Test .059 amp. Readj. .063 amp.	
E1597 (SLV)	Test .026 amp. Readj. .023 amp.		Test .001 amp. Readj. .003 amp.
Inner and Outer wdgs. in parallel.			

ENG. --JLS:ML
9/8/21

CHK'D.--RAP:CWP

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